SBR No. 15/18-19
DATED 3-5-18

Original/Duplicate/Triplicate

# CONTRACT CERTIFICATE

(For Other Works)

EE/ELE/Y/BR No. 15/18-19 Date: 2017

No.1st R.A bill

Division: Electricals (Yelahanka) Sub-Division: **Electricals**

Dt. 3-5-18

Bill Received No. Dated Divisional Cash Book Voucher No..... Dated.....

Sub Divisional **Job Code :-004-18-000079**

**Schedule Docket No.** Head of Account :**P -0190 (Hon Mayor Grants))**

**D.R.No. :**

**Name of Work:-** Providing and improvements to the LED Street Lights in Allalsandra lake path way and Approach roads in Ward no 4

**Name of Contractor and Full Address**: Technical Maneger KRIDL BBMP Bangalore..

**Reference to Agreement No:**EE/Ele/YZ/WO/000027 /17-18 Date:21/03/2018

Certified that the measurements were taken by me on 23/4/2018 and recorded of Pages 311856 to 863 of measurement Book No. 3119/17-18 and that the work is satisfactorily executed.

T.M, Reddy Dept.

**Contractor** **Officer-in-charge of work**

Assistant Executive Engineer, Byatarayanapura Sub-Division KRIDL BBMP, Bangalore

Certified that the measurement were taken by me on 28/12/18 ……and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

**Sub Division Officer**

Assistant Executive Engineer (Ele) BBMP, Bangalore

II Memorandum of Payment

| | | |
|---|---|---|
| 1) Total value of work done or supplies made as per account within | Bill = | 2431726=00 |
| 2) Deduct amount to be held in reserve being ……percent Rs…… | IT 2% | 48635=00 |
| 3) " Balance | Sgst 1% | 24317=00 |
| 4) Deduct Payment: | Cgst 1% | 24317=00 |
| a) Amount of previous payment as in the Office Cash Book Voucher No……Dated……S.D. No…… Amount adjusted towards cash advance recovery of | Lwc 1% | 24317=00 |
| | CBF 0.1% | 2432=00 |
| | FSD 7.50% | 182380=00 |
| | deductions | 306398=00 |
| b) Payments Now made: cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash. | Cheque = | 2125328=00 |
| 5) Balance being unpaid value of work done held in reserve. | | |
| 6) Deduct cash advance made on the Office cash Book Voucher No…… dated……less adjustments. | | |
| 7) Net amount due to or from Contractor unadjustments items. | | |
| 8) Advance to Contractor for materials brought to site (as detailed) within. | | |
| 9) Value of Government materials supplied. | | |
| Total amount adjusted - | | |

Contractor's Signature

Assistant Executive Engineer, Byatarayanapura Sub-Division KRIDL BBMP, Bangalore

Received Rs…… (in words)……

……

by cash and by adjustment of Payment as per memorandum

(in final settlement of all demands)

(For use in the Office)

Witness

1.

2.

Dated Signature of Contractor

Paid by me by Cheque No. Dated……

Cash Rs…… Dated……

Initials of Officer making payment

Stamp

ಲೆಕ್ಕಶೀರ್ಷಿಕೆ P0190 Hon Mayors grants

ರೂ: 2431726=00 ಆಡಿಟ್ ಮಾಡಿ ಪಾವತಿಸಿದೆ

ರೂ: 2125328=00 ಚೆಕ್ ನೀಡಲಾಗಿದೆ

ರೂ: 306398=00 ಹೊರಾಂಗಣ

Executive Engineer

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು

ಕಾ.ಪಾ.ಅ.(ವಿ) ಯಲಹಂಕ ವಲಯ

| Sl. No | Description of Item | Unit |
|---|---|---|
| | **Name Of Work:-** Providing and improvements to the LED Street Lights in Allalsandra lake path way and Approach roads in Ward no 4 | |
| 1 | LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.LED Streetlight 65watts | |
| 2 | LED Street light. Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs. 50000 hr. @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4 KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI 75+. housing with supplier word mark / name shall be engraved / Embossing on the die cast housing / body part. . Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacturer. Suitable for A1/A2 Roads as per IS 1944 Part I & Part II.90 Watts | |
| 3 | Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.3 X 16 + 1 X 25 + 1 X 16 SQ.MM | Per Mtr |
| 4 | Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR | Per Mtr |
| 5 | Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.pipe | each |
| 6 | Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires. | Each |
| 7 | Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable 3.5 core 50 sqmm | Per Mtr |
| 8 | Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct. b)25sqmm to 75 sqmm | Per Mtr |
| 9 | Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete. (As perCivil SR KSRB I-2, P-7).a) In soil (ordinary) | Per Mtr |

| Previous Measurement | | Present Measurement | | | Total Upto Date | | Remarks |
|---|---|---|---|---|---|---|---|
| Qty | Cost | Qty | Rate | Amount | Qty | Cost | |
| | | 42 | 18720.00 | 786240.00 | 42 | 786240.00 | |
| | | 40 | 31250.00 | 1250000.00 | 40 | 1250000.00 | |
| | | 247 | 177.00 | 43719.00 | 247 | 43719.00 | |
| | | 247 | 10.30 | 2544.10 | 247 | 2544.10 | |
| | | 20 | 893.00 | 17860.00 | 20 | 17860.00 | |
| | | 0 | 176.00 | 0.00 | 0 | 0.00 | |
| | | 96 | 220.00 | 21120.00 | 96 | 21120.00 | |
| | | 96 | 16.00 | 1536.00 | 96 | 1536.00 | |
| | | 25 | 78.00 | 1950.00 | 25 | 1950.00 | |

| | | |
|---|---|---|
| 10 | Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features<br>1) Main Control Unit ( Mother board ) : Handles controlling , data handling and other communication process.<br>2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit<br>3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching<br>5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components. | Nos |
| 11 | Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and **Copper** conductor single core cable in open or consealed system of wiring.I Group A Materials.c)2.5sqmm | Per Mtr |
| 12 | 1.5 sqmm | Per Mtr |
| 13 | Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia | Each |
| 14 | Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)40X40X6mm | Per Mtr |
| 15 | Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded Aluminium unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm. | Each |
| 16 | Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. ( Icu = Ics) THREE POLE 125-160Amps 25kA. | Each |
| | Total Rs | |
| | Add KRIDL Charges 11% Rs | |
| | Total Rs | |

Certificate: 1. Certefied that the Above Work has been carreid out satisfactorily

Assistant Executive Engineer (Ele)
BBMP, Bangalore

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 51500.00 | 51500.00 | 1 | 51500.00 | |
| | | 30 | 24.90 | 747.00 | 30 | 747.00 | |
| | | 100 | 15.90 | 1590.00 | 100 | 1590.00 | |
| | | 1 | 2727.00 | 2727.00 | 1 | 2727.00 | |
| | | 6 | 263.00 | 1578.00 | 6 | 1578.00 | |
| | | 297 | 7.50 | 2227.50 | 297 | 2227.50 | |
| | | 1 | 5406.00 | 5406.00 | 1 | 5406.00 | |
| | | | | 2190744.60 | | 2190744.60 | |
| | | | | 240981.91 | | 240981.91 | |
| | | | | **2431726.51** | | **2431726.51** | |